

WHAT IS CLAIMED IS:

1. A data processing apparatus, comprising:  
input means for entering data;  
display control means for controlling displaying  
5 means to display an image regarding the input data  
entered by said input means in a predetermined display  
state; and  
storing means for storing attribute information of  
the input data and information regarding the display  
10 state in correspondence to each other.
2. An apparatus according to claim 1, wherein  
said input means can enter a plurality of data rows  
from a plurality of input sources; and the displaying  
15 means can simultaneously display images respectively  
corresponding to the plurality of data rows.
3. An apparatus according to claim 2, wherein  
each of the input sources includes at least one  
20 selected from external connection devices including  
digital TV broadcasting, analog TV broadcasting,  
digital data transmission, analog data transmission,  
Internet, VTR and DVD, and recording media including a  
memory card, in which recorded data can be reproduced  
25 by the data processing apparatus.
4. An apparatus according to claim 1, wherein the

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attribute information contains at least one selected  
from input source information of the input data,  
channel information, genre information, program title  
information, program broadcasting time information,  
5 viewing and listening starting time information,  
application information for executing the entering and  
displaying operations of the input data.

10 5. An apparatus according to claim 1, wherein the  
display state information contains at least one  
selected from a screen size for displaying the image, a  
screen display position, hierarchy display information  
between a plurality of screens, display effect  
information including screen transmittance, and  
15 information regarding the number of screen colors.

20 6. An apparatus according to claim 1, further  
comprising: audio output control means for controlling  
audio output means to output audio regarding audio data  
in the input data in a predetermined audio output  
state,

25 wherein said storing means further stores the  
attribute information of the input data and the audio  
output state information in correspondence with each  
other as an audio pattern.

7. An apparatus according to claim 6, wherein

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said storing means stores the attribute information of the input data, the display state information and the audio output state information in correspondence with one another as a viewing and listening pattern.

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8. An apparatus according to claim 7, wherein the audio output state includes at least one selected from monophonic, stereo, multi-channel stereo and bilingual audio output modes.

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9. An apparatus according to claim 1, wherein said display control means performs control to select a display pattern according to the attribute information of the input data entered by the input means among display patterns stored in said storing means, and display the image regarding the input data in a display state according to the selected display pattern.

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10. An apparatus according to claim 9, wherein said storing means stores the number of times of displaying the display pattern, and the display pattern in correspondence with each other, and said display control means selects a display pattern, the number of displaying times thereof being largest, among the display patterns according to the attribute information of the input data.

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11. An apparatus according to claim 9, further comprising: instructing means for instructing an entry of the input data by the input means,

5 wherein said display control means determines a display state of the image regarding the input data instructed by the instructing means according to the instruction of the instructing means.

10 12. An apparatus according to claim 11, wherein the instructing means instructs at least one operation selected from station selection in broadcast wave receiving, reproducing of data from an external connection device, browser starting of the Internet, and reproducing of data from a recording medium, in  
15 which recorded data can be reproduced by the data processing apparatus.

20 13. An apparatus according to claim 1, further comprising: application executing means for executing an application,

25 wherein said display control means further controls the displaying means to display an image regarding display data generated by the execution of the application by the application executing means in a predetermined display state, and said storing means stores attribute information of the display data and the display state in correspondence with each other as

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a display pattern.

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14. An apparatus according to claim 13, wherein  
said display control means performs control to select a  
5 display pattern according to the display pattern  
generated by the execution of the application among  
display patterns stored in the storing means, and  
display the image regarding the display data in a  
display state according to the selected display  
10 pattern.

15. An apparatus according to claim 14, wherein  
the application executing means executes at least one  
selected from applications for clock displaying,  
15 scheduler notification, and E-mail receiving.

16. An apparatus according to claim 13, wherein  
said display control means determines a display state  
of the display data according to generation of the  
20 display data, when the display data is generated during  
the execution of the application by the application  
executing means.

17. An apparatus according to claim 16, wherein  
25 the application executing means executes an application  
for E-mail receiving and displaying, and said display  
control means determines a display state of content

data of the E-mail according to the receiving of the E-mail.

18. An apparatus according to claim 1, wherein  
5 said storing means stores the number of displaying  
times of the display pattern, and the display pattern  
in correspondence with each other for each  
predetermined time zone according to a date when the  
image regarding the input data is displayed.

19. An apparatus according to claim 18, wherein  
said display control means performs control to display  
a display pattern, the number of displaying times  
thereof being largest, in the predetermined time zone  
15 including predetermined time according to the reached  
predetermined time.

20. An apparatus according to claim 1, further  
comprising: identifying means for identifying a user or  
20 a user group viewing and listening to the image  
regarding the input data displayed by the displaying  
means,

wherein said storing means stores the display  
pattern for each user or user group identified by the  
25 identifying means.

21. An apparatus according to claim 20, wherein

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said display control means performs control to select a display pattern among the display patterns stored in said storing means according to the user or user group identified by the identifying means and the attribute information of the input data entered by the input means, and display the image regarding the input data in a display state according to the selected display pattern.

10           22. A data processing method, comprising:  
            an input step of entering data;  
            a display control step of controlling displaying means to display an image regarding input data entered in a predetermined display state; and  
15           a storing step of storing attribute information of the input data and information regarding the display state in correspondence with each other as a display pattern in storing means.

20           23. A method according to claim 22, wherein in said input step, a plurality of data rows can be entered from a plurality of input sources, and the display means can simultaneously display images respectively corresponding to the plurality of data  
25 rows.

24. A method according to claim 23, wherein each

of the input sources includes at least one selected from external connection devices including digital TV broadcasting, analog TV broadcasting, digital data transmission, analog data transmission, Internet, VTR, and DVD, and recording media including a memory card, in which recorded data can be reproduced by the data processing apparatus.

10 25. A method according to claim 22, wherein the attribute information contains at least one selected from input source information of the input data, channel information, genre information, program title information, program broadcasting time information, viewing and listening starting time information, 15 application information for executing the entering and displaying operations of the input data.

20 26. A method according to claim 22, wherein the display state information contains at least one selected from a screen size for displaying the image, a screen display position, hierarchy display information between a plurality of screens, display effect information including screen transmittance, and information regarding the number of screen colors.

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27. A method according to claim 22, further comprising: an audio output control step of controlling

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audio output means to output audio regarding audio data in the input data in a predetermined audio output state,

wherein the storing means further stores the attribute information of the input data and the audio output state information in correspondence with each other as an audio pattern.

10 28. A method according to claim 27, wherein the storing means stores the attribute information of the input data, the display state information and the audio output state information in correspondence with one another as a viewing and listening pattern.

15 29. A method according to claim 27, wherein the audio output state includes at least one selected from monophonic, stereo, multi-channel stereo and bilingual audio output modes.

20 30. A method according to claim 22, wherein in said display control step, control is performed to select a display pattern according to the attribute information of the input data entered by the input means among display patterns stored in the storing means, and display the image regarding the input data  
25 in a display state according to the selected display pattern.

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31. A method according to claim 30, wherein the storing means stores the number of times of displaying the display pattern, and the display pattern in correspondence with each other and, in said display control step, a display pattern, the number of displaying times thereof being largest, is selected among the display patterns according to the attribute information of the input data.

10 32. A method according to claim 30, further comprising: an instructing step of instructing an entry of the input data by the input means,

wherein in said display control step, a display state of the image regarding the input data instructed by the instructing means is determined according to the instruction of the instructing means.

33. A method according to claim 32, wherein in the instructing step, at least one operation selected from station selection in broadcast wave receiving, reproducing of data from an external connection device, browser starting of the Internet, and reproducing of data from a recording medium, in which recorded data can be reproduced by the data processing apparatus, is instructed.

34. A method according to claim 22, further

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comprising: an application executing step of executing an application,

wherein in said display control step, the displaying means is further controlled to display an image regarding display data generated by the execution of the application by the application executing means in a predetermined display state, and the storing means stores attribute information of the display data and the display state in correspondence with each other as a display pattern.

35. A method according to claim 34, wherein in said display control step, control is performed to select a display pattern according to the display pattern generated by the execution of the application among display patterns stored in the storing means, and display the image regarding the display data in a display state according to the selected display pattern.

36. A method according to claim 35, wherein in the application executing step, at least one selected from applications for clock displaying, scheduler notification, and E-mail receiving is executed.

37. A method according to claim 34, wherein in said display control step, a display state of the

display data is determined according to generation of the display data, when the display data is generated during the execution of the application by the application executing means.

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38. A method according to claim 37, wherein in the application executing step, an application for E-mail receiving and displaying is executed and, in said display control step, a display state of content data of the E-mail is determined according to the receiving of the E-mail.

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39. A method according to claim 22, wherein the storing means stores the number of displaying times of the display pattern, and the display pattern in correspondence with each other for each predetermined time zone according to a date when the image regarding the input data is displayed.

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40. A method according to claim 39, wherein in said display control step, control is performed to display a display pattern, the number of displaying times thereof being largest, in the predetermined time zone including predetermined time according to the reached predetermined time.

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41. A method according to claim 22, further

comprising: an identifying step of identifying a user or a user group viewing and listening to the image regarding the input data displayed by the displaying means,

5            wherein the storing means stores the display pattern for each user or user group identified by the identifying means.

10           42. A method according to claim 41, wherein in said display control step, control is performed to select a display pattern among the display patterns stored in the storing means according to the user or user group identified by the identifying means and the attribute information of the input data entered by the  
15           input means, and display the image regarding the input data in a display state according to the selected display pattern.

20           43. A storage medium for storing a program code used to execute a data processing method:  
             said data processing method including;  
             an input step of entering data;  
             a display control step of controlling displaying means to display an image regarding input data entered  
25           in a predetermined display state; and

             a storing step of storing attribute information of the input data and information regarding the display

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state in correspondence with each other as display  
means in storing means.

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